

REMARKS / ARGUMENTS

I. General Remarks and Remarks Regarding the Restriction Requirement

Please consider the application in view of the following remarks.

On May 18, 2005, during a telephone conversation with the Examiner, claims 1-60 were provisionally elected in response to the Examiner's restriction requirement. This provisional election is hereby confirmed and claims 61-80 have been cancelled. No amendment to inventorship is necessitated by this election. Applicants respectfully reserve the right to present the cancelled claims in one or more divisional applications.

II. Disposition of Claims

Claims 1-60 are pending in this application.

Claims 1, 4-13, 15, 18, 21, 24-33, 35, 38, 41, 44-53, 55 and 58 have been amended herein to correct some claim formalities and to more clearly claim the present invention. These amendments add no new matter to the application, and are supported by the specification as filed.

Claims 4-7, 24 and 35 stand rejected under 35 U.S.C. § 112. Claims 1, 2, 4, 14, 15, 21, 22, 24, 34, 41, 42, 54 and 55 stand rejected under 35 U.S.C. § 102(b). Claims 3, 5-13, 16-20, 23, 25-33, 35-40, 43-53 and 56-60 stand rejected under 35 U.S.C. § 103(a).

III. Rejections of Claims

A. Rejections of Claims Under 35 U.S.C. § 112

Claims 4-7, 24 and 35 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Specifically, the Examiner states that the terms "the hardenable resin," "the liquid hardening agent," "the silane coupling agent," "the surfactant," "the hardenable resin" and "the tackifying coating material" lack sufficient antecedent basis in each of those claims. In this Response, Applicants have amended those claims in accordance with the Examiner's suggestions to correct the errors in the dependency of those claims, and respectfully assert that those terms now have sufficient antecedent basis. Accordingly, Applicants respectfully request the withdrawal of these rejections.

B. Rejections of Claims Under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 14, 15, 21, 22, 24, 34, 41, 42, 54 and 55 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,209,643 to Nguyen, *et al.* (“*Nguyen*”). Applicants respectfully traverse.

In order to form a basis for a rejection under 35 U.S.C. § 102(b), a prior art reference must disclose each and every element as set forth in the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2131 (2004). *Nguyen* does not disclose each and every element as set forth in the rejected claims because *Nguyen* does not disclose a method using a reduced-density particulate having a surface and a coating wherein (1) the surface comprises a porous or partially hollow geometry, and (2) the coating is capable of trapping a fluid between the particulate’s surface and the coating, as shown below.

First, *Nguyen* does not disclose a particulate having a surface that comprises a porous or partially hollow geometry, as recited in Applicants’ claims. In fact, *Nguyen* does not discuss the geometry of the particulates used in the methods described therein at all. *Nguyen* does mention that an “additional material” on the particulates used therein may comprise a porous material. (See *Nguyen* at col. 4, ll. 31-33.) However, *Nguyen* does not describe what is meant by “porous” in this context, nor does it use this word to describe the geometry of the surface of the particulates used therein.

Further, *Nguyen* does not disclose a particulate having a coating that is capable of trapping a fluid between the particulate’s surface and the coating, as recited in Applicants’ claims. The only action of the coatings on the particulates disclosed in *Nguyen* is to “cause [a] particulate adjacent to the coated material . . . to adhere to the coated material thereby creating proppant agglomerates which . . . minimize initial particulate flowback.” (See *Nguyen* at col. 3, ll. 51-59.) This does not disclose, either explicitly or inherently, that those coatings are capable of trapping a fluid between the particulate’s surface and the coating.

Applicants therefore respectfully assert that the *Nguyen* does not disclose each element of the methods recited in claims 1, 21 and 41. Thus, those methods are patentable over *Nguyen*. Moreover, since “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,” and since claims 2, 4, 14, 15, 22, 24, 34, 42, 54 and 55 depend, either directly or indirectly, from claims 1, 21 or 41, these dependent

claims are allowable for at least the same reasons. *See* 35 U.S.C. § 112 ¶ 4 (2004). Accordingly, Applicants respectfully request the withdrawal of these rejections.

C. Rejections of Claims Under 35 U.S.C. § 103(a)

1. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of U.S. Patent No. 4,665,988

Claims 3, 5-7, 12, 13, 23, 25-27, 32, 33, 35, 43-47, 52 and 53 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of U.S. Patent No. 4,665,988 to Murphey, *et al.* (“*Murphey*”). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a reduced-density particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate’s surface and the coating, as recited in claims 1, 21 and 41. Nor has the Examiner asserted that *Murphey* teaches or suggests these elements. Claims 3, 5-7, 12, 13, 23, 25-27, 32, 33, 35, 43-47, 52 and 53 also include each of these limitations since they each depend, either directly or indirectly, from claims 1, 21 or 41, and “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen* and *Murphey* does not teach these elements, claims 3, 5-7, 12, 13, 23, 25-27, 32, 33, 35, 43-47, 52 and 53 are patentable over *Nguyen* in view of *Murphey*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

2. Rejection of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of U.S. Patent No. 6,079,492

Claims 8, 10, 48 and 50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of U.S. Patent No. 6,079,492 to Hoogteijling, *et al.* (“*Hoogteijling*”). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under § 103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a reduced-density particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of

trapping a fluid between the particulate's surface and the coating, as recited in claims 1 and 41. Nor has the Examiner asserted that *Hoogteijling* teaches or suggests these elements. Claims 8, 10, 48 and 50 also include each of these limitations since they each depend, either directly or indirectly, from claims 1 or 41, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen* and *Hoogteijling* does not teach these elements, claims 8, 10, 48 and 50 are patentable over *Nguyen* in view of *Hoogteijling*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

3. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Murphey* and *Hoogteijling*

Claims 28 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of *Murphey* and *Hoogteijling*. Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a reduced-density particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating, as recited in claim 21. Nor has the Examiner asserted that *Murphey* or *Hoogteijling* teaches or suggests these elements. Claims 28 and 30 also include each of these limitations since they each depend, either directly or indirectly, from claim 21 and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Murphey* and *Hoogteijling* does not teach these elements, claims 28 and 30 are patentable over *Nguyen* in view of *Murphey* and *Hoogteijling*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

4. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Hoogteijling* and U.S. Patent No. 6,732,800

Claims 9, 11, 49 and 51 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of *Hoogteijling* and further in view of U.S. Patent No. 6,732,800 to Acock, *et al.* ("*Acock*"). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim.

MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a reduced-density particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating, as recited in claims 1 and 41. Nor has the Examiner asserted that *Hoogteijling* or *Acock* teaches or suggests these elements. Claims 9, 11, 49 and 51 also include each of these limitations since they each depend, either directly or indirectly, from claims 1 or 41, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Hoogteijling* and *Acock* does not teach these elements, claims 9, 11, 49 and 51 are patentable over *Nguyen* in view of *Hoogteijling* and *Acock*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

5. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Murphey*, *Hoogteijling*, and *Acock*

Claims 29 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of *Murphey* and *Hoogteijling* and further in view of *Acock*. Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a reduced-density particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating, as recited in claim 21. Nor has the Examiner asserted that *Murphey*, *Hoogteijling* or *Acock* teaches or suggests these elements. Claims 29 and 31 also include each of these limitations since they each depend, either directly or indirectly, from claim 21, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Murphey*, *Hoogteijling* and *Acock* does not teach these elements, claims 29 and 31 are patentable over *Nguyen* in view of *Murphey*, *Hoogteijling*, and *Acock*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

6. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of U.S. Patent No. 5,663,123

Claims 16-18, 20, 36-38, 40, 56-58 and 60 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of U.S. Patent No. 5,663,123 to Goodhue, Jr. *et al.* ("*Goodhue*"). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a reduced-density particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating, as recited in claims 1, 21 and 41. Nor has the Examiner asserted that *Goodhue* teaches or suggests these elements. Claims 16-18, 20, 36-38, 40, 56-58 and 60 also include each of these limitations since they each depend, either directly or indirectly, from claims 1, 21 or 41, and "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." See 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen* and *Goodhue* does not teach these elements, claims 16-18, 20, 36-38, 40, 56-58 and 60 are patentable over *Nguyen* in view of *Goodhue*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

7. Rejections of Claims Under 35 U.S.C. § 103(a) Over *Nguyen* in View of *Goodhue* and U.S. Patent No. 4,387,769

Claims 19, 39 and 59 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Nguyen* in view of *Goodhue* and further in view of U.S. Patent No. 4,387,769 to Erbstoesser, *et al.* ("*Erbstoesser*"). Applicants respectfully traverse.

In order for a combination of references to form the basis for a rejection under §103(a), the combination of references must teach or suggest all of the elements of the claim. MANUAL OF PATENT EXAMINING PROCEDURE § 2143 (2004). However, as discussed in Section III.B. above, *Nguyen* does not teach or suggest the use of a reduced-density particulate having a surface that comprises a porous or partially hollow geometry and a coating that is capable of trapping a fluid between the particulate's surface and the coating, as recited in claims 1, 21 and 41. Nor has the Examiner asserted that *Goodhue* or *Erbstoesser* teaches or suggests these elements. Claims 19, 39 and 59 also include each of these limitations since they each depend,


either directly or indirectly, from claims 1, 21 or 41, and “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 ¶ 4 (2004). Therefore, since the combination of *Nguyen*, *Goodhue* and *Erbstoesser* does not teach these elements, claims 19, 39 and 59 are patentable over *Nguyen* in view of *Goodhue* and *Erbstoesser*. Accordingly, Applicants respectfully request the withdrawal of these rejections.

SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that there are no fees due in association with this filing of this Response. However, should the Commissioner deem that any fees are due, including any fees for extensions of time, Applicants respectfully request that the Commissioner accept this as a petition therefor, and direct that any additional fees be charged to the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300 (Reference Number HES 2003-IP-010083U1).

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert A. Kent", is written over a horizontal line.

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